DOCUMENT RESUME

ED 201 434 RC 012 654

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TITLE Educational Strategies for Rural Development: An Outcome Evaluation of Four Experimental Programs.
PUB DATE 7 Aug 80
NOTE 39p.; Paper presented at the World Congress for Rural Sociology (5th, Mexico City, Mexico, August 7-12, 1980).

EDRS PRICE MF01/PC02 Plus Postage.
DESCRIPTORS Adult Education; Adults; Change Agents; *Citizen Participation; *Community Development; Community Leaders; Educational Strategies; Experimental Programs; International Programs; *Leadership Training; Program Evaluation; *Public Affairs Education; *Rural Development; *Social Action; Social Problems
IDENTIFIERS California; Michigan; Montana; Pennsylvania

ABSTRACT

An evaluation of four experimental programs designed to stimulate participation of agricultural and rural leaders in public affairs assessed the effectiveness of leadership training on young men and women in California, Michigan, Montana, and Pennsylvania. Varying from two to three years in length, the programs emphasized the analysis of major public issues such as inflation, poverty, and inadequate health care as they are local, national, and international in scope. The four programs, using a multi-disciplinary experienced-based approach, incorporated common objectives to: (1) develop the ability to analyze public problems critically and objectively; (2) develop an understanding of the economic, social, political, and cultural dimensions of public problems; (3) increase ability to solve public problems with improved leadership and group-participation skills; and (4) increase understanding of important local, state, national, and international issues. Data from preprogram and postprogram tests and questionnaires from 415 participants and 76 persons in a nonparticipant Pennsylvania comparison group revealed substantial increased participation in public affairs-related groups and economic associations among program graduates, suggesting that public affairs leadership development programs are a means for attaining community and rural development goals. (Author/JD)

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EDUCATIONAL STRATEGIES FOR RURAL DEVELOPMENT:

AN OUTCOME EVALUATION OF FOUR EXPERIMENTAL PROGRAMS

MAR 1981
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ABSTRACT

According to community development theory, active citizen involvement in community affairs will strengthen the local community. From this perspective, we can assume that educational strategies designed to enhance the effective participation of agricultural and rural leaders in public affairs are a means for achieving community and rural development goals. This paper reports the results of four experimental state-wide public affairs leadership programs that were designed to stimulate greater participation in public affairs, and broaden the perspectives and increase the leadership and problem solving skills of program participants. Between 1965 and 1976, more than 700 young men and women, generally from rural areas, attended special adult education programs which were conducted in California, Michigan, Montana, and Pennsylvania. The programs were two to three years in length and conducted during the winter months so that farmers could attend. In addition to leadership skills development, the programs emphasized the analysis of major public issues such as inflation, poverty, and inadequate health care as they are local, national, and international in scope. The evaluation of these programs used a modified form of a quasi-experimental design to assess behavioral change among program participants relative to a nonparticipant comparison group. The study found substantial increases among program graduates in participation in public affairs-related organizations and increased involvement in economic associations. The findings lend support for the assumption that public affairs leadership development programs are a means for attaining community and rural development goals.

Prepared for presentation at the 5th World Congress for Rural Sociology, Mexico City, August 7-12, 1980.

EDUCATIONAL STRATEGIES FOR RURAL DEVELOPMENT: AN OUTCOME EVALUATION OF FOUR EXPERIMENTAL PROGRAMS

Rural development has been defined "as a planned process of change in people, in social institutions, and in relationships between the two, directed toward making rural areas more desirable places in which to work and live" (Miller, 1979:13). Participation of rural people in collaboration with professional change agents and technical experts is considered to be an essential aspect of community development process. In fact, one of the major tenants of community development theory is that community participation functions to strengthen the local community (Sanders, 1958; Zealey, 1959; Warren, 1972; Pearlman and Gurin, 1972). Such strengthening of the local community also involves linking local leaders to functions organized and managed on a regional, national, and international basis (Solomon, 1972).

The important role of educational strategies as an approach for achieving rural development goals has been well documented in the literature (Cosgriffe, 1967; Solomon, 1972; Miller, 1979; and Wilkinson, 1979). Training leaders to help initiate and direct community development processes is frequently given as an example to illustrate the application of educational strategies for improving the quality of rural community life. This paper describes four experimental educational programs that were designed to stimulate the participation of agricultural and rural leaders in public affairs, and presents the results of an evaluation of the effectiveness of these programs.

Between 1965 and 1976, more than 700 men and women participated in one of four experimental state-wide public affairs leadership development programs which received financial assistance from the W. K. Kellogg Foundation.

The program models differed in the interpretation of objectives, characteristics of the sponsoring organizations, and in techniques and procedures for implementation (e.g. participant selection processes). However, all of the projects were initiated because of a perceived need for more and better leaders in agriculture and rural areas and all used similar educational approaches. The Kellogg Foundation hoped that the experimental projects would serve as models for many educational institutions with a concern for agriculture and rural development to build upon.

In 1976, the Kellogg Foundation was faced with a policy decision. Although the four leadership development projects seemed to be highly successful in meeting their goals, much of the evidence was anecdotal. It was decided that the internal project evaluations were not sufficiently rigorous to use as the basis for endorsement leading to widespread adaptation. Hence, the Kellogg Foundation commissioned faculty from the Department of Rural Sociology at Washington State University to independently assess the extent to which the four experimental programs attained common program goals.

The evaluation study undertook to answer the overall question: How did these programs affect the participants, the institutions involved, and the respective states? The study's conclusions were based on data relating to changes in program graduates' evaluations of program impacts and effectiveness, and on appraisals of how the program experience affected the sponsoring educational institutions. Given our intent in this paper to evaluate the effectiveness of a rural development educational strategy, we will only report on the program's impact upon changes in program graduates' participation in public affairs-related organizations. However, because of the importance of farm organizations and private interest groups in linking farmers and rural people to functions outside of the local community

(Solomon, 1972:352), we also examined program impacts upon increasing the participation of their graduates in economic associations.[1]

Educational Program Characteristics

The four public affairs leadership development programs were conducted in the states of California, Michigan, Montana and Pennsylvania. To provide a perspective on the major similarities and differences among the programs, we will briefly describe their operational structures, personnel, designs, and curricula.

The first program began in 1965 when the Kellogg Foundation began assisting Michigan State University's Department of Agricultural Economics in the development of an intensive adult education program in public decision-making. Between 1970 and 1971, similar state-wide programs were organized in California, Montana, and Pennsylvania. The Pennsylvania program was conducted by members of Pennsylvania State University's Department of Agricultural Economics and Rural Sociology and the Cooperative Extension Service. The program in Montana was conducted by agricultural economists and public policy specialists of Montana State University's Cooperative Extension Service. The California program was unique in that it was conducted by a private nonprofit corporation, the California Agricultural Education Foundation, in conjunction with a dean's educational program council, which consisted of the deans of agriculture in four institutions within the University of California and California State College systems. Thus, three of the programs were conducted by faculty of land-grant educational institutions, while one program was uniquely conducted by the staff

[1] For the complete results of the evaluation study see Howell, Robert E., Ivan Lee Weir, and Annabel Kirschner Cook, Public Affairs Leadership Development: An Impact Assessment of Programs conducted in California, Michigan, Montana and Pennsylvania, Washington State University, Pullman, Washington (1979). Final report to the W. K. Kellogg Foundation.

of a private nonprofit educational foundation with the assistance of university faculty members.

The educational programs were similar to conference-style executive development programs; however, workshops and seminars focused on the analysis of public issues from a broad perspective, public policy processes, and the development of leadership and communication skills. The unique features of each program included three-to-five day "live-in" workshops extending over a one to three-year time period; travel seminars at local, state, national, and international levels; and cultural experiences. The "classroom" and travel seminars were designed to increase leadership skills and to give participants a broader understanding of major public issues, as well as the processes involved in policy development and implementation. The following four educational objectives were common to all programs:

1) To develop among participants the ability to analyze public problems critically and objectively.
2) To develop among participants an understanding of the economic, social, political, and cultural dimensions of public problems.
3) To increase the participant's ability to solve public problems by improving his/her leadership and group-participation skills.
4) To increase the participant's understanding of important local, state, national, and international issues.

These objectives were reflected in the seminar topics contained in the educational programs developed in each state.

The programs varied in length from a one-year 20-day program in Pennsylvania, which focused on the analysis of local and state-wide public issues, to the more typical two- and three-year programs which included the study of local, national, and international issues. The two- and three-year programs ranged from 64 to 123 days of training. The programs were

generally conducted during the winter months so that farmers could attend. Each participant group or class had approximately 30 members. Because of our interest in comparatively evaluating the effectiveness of similar rural development educational strategies, only the programs which included an international emphasis were considered in this analysis.

A multi-disciplinary experience-based approach to education was used in conducting the educational programs. Core instructional faculty represented such academic disciplines as economics, sociology, education, political science, philosophy, speech and communications, and the fine arts. Other resource persons were from government and private industry. Regardless of their affiliations, all resource persons had extensive experience in the topic areas which they were responsible for discussing. Among other major public issues, each program included seminars on poverty, energy, world hunger, agricultural policy issues, the problems of major cities, and problems related to urbanization. Government structures, policy development processes, and strategies for action in solving public problems were also emphasized. In each case, the emphasis was on public issues and personal improvement topics which participants were not typically exposed to in the normal course of their personal, educational, and occupational development.

To provide participants with an opportunity to become more closely exposed to the public issues, processes, and programs discussed in the classroom, travel seminars were conducted in the United States and other countries in both rural and urban settings. The travel seminars provided participants with a broad array of new experiences ranging from visits with high level government officials to visits with persons who were working closely with or affected by public problems.

Travel seminars with a domestic emphasis included visits to the state capitol, major urban centers, other rural areas, and Washington, D.C.

The travel seminars with an international emphasis generally exposed participants to both highly developed and developing nations. Visits to highly developed nations such as Germany and the Netherlands provided opportunities to view other forms of government and innovative rural development programs. During the travel seminars in developing nations the participants also viewed innovative development programs and they were exposed to problems faced by people living under conditions of extreme poverty. In both developed and developing nations the emphasis was on broadening the understandings and sensitivities of participants to different cultural groups.

Participant Characteristics

Characteristics common to all participants were their young age, generally between 20 and 45, and their high potential for leadership. Participants in the Michigan program were successful farm businessmen. The California program included farmers and persons in occupations and professions related to agriculture, while the Pennsylvania program was expanded to include a cross-section of rural residents including farmers, agri-business representatives, homemakers, non-agriculture-related professionals, and persons in nonfarm-related business. The Montana program included men and women from throughout the state. Only the Montana and Pennsylvania programs included women. Income and education levels varied from state-to-state and most participants were married. Table 1 contains a summary of participant characteristics.

Table 1 here

Table 1. A comparison of selected characteristics of leadership program graduates from four states and members of a Pennsylvania Comparison Group.

Characteristic	Pennsylvania Program Group (N=76)	Pennsylvania Comparison Group (N=76)	California (N=143)	Michigan (N=124)	Montana (N=72)
Income (Median)	$14,479.00	$15,600.00	Over $30,000.00[1]	$22,656.50	$17,307.50
Age (Median)	32.2	36.1	36.0	39.0	42.0
Sex (Percent Male)	70.8	67.1	100	100	63.9
Marital Status (Percent Married)	80.6	86.8	88.1	98.4	83.3
Occupation (Percent Farmers, Farm Managers, and Agricultural Workers)	35.4	21.1	68.1	88.7	29.2
Education (Percent College Degree or more)	51.7	52.6	81.2	28.2	61.1

[1]The specific median income could not be calculated for the California group because the highest income category was "Over 30,000.00." Just over 50 percent of the California respondents indicated that their income was over $30,000.00.

Assessing Program Outcomes

Given the intent of the four programs to stimulate more active participation in public affairs on the part of men and women in rural areas, we will assess program outcomes in terms of increases in participant involvement in public affairs-related organizations, and we will also consider program impacts upon increasing participation in economic associations. The extent of program outcomes will be measured by the degree to which program graduates increased their participation in public affairs-related organizations and economic associations relative to persons with similar characteristics who did not participate in the program.

Conceptual Considerations

The literature related to participation in public affairs and voluntary associations generally conceptualizes such action as it is exercised through involvement in associations functioning in local communities, and focuses on these organizations as vehicles formed for the purpose of influencing all levels of government (Lipsit, Trow and Coleman, 1956; Kornhouser, 1959; Zimmer and Hawley, 1959). Voluntary associations with a concern for local public affairs may also be formed as a result of inducements from agencies outside of the community. Associations of this type function as "channels of communication, sources of legitimization, vehicles of social control, and a means to organize and direct resources" (Taub, et al., 1977). Voluntary public affairs associations may function to either influence public decision-making processes as indicated above, or they may directly provide one or more public services through voluntary means. Consistent with Warren's (1972) typology of organizations, this study expands the

concept of participation in voluntary associations to include serving on official government bodies.

The public decision-making process at the community level may be viewed as an interaction system between leaders and citizens. In this interaction system, leaders do not act in a vacuum and they are responsive, in varying degrees, to citizens who are not in official leadership roles. This responsiveness allows other persons or groups to influence community decision-making processes and take a leadership role.

Two studies about leadership responsiveness to influence on community issues (Aggar and Ostrom, 1956; Verba and Nie, 1972) point to the importance of participation in voluntary associations and other areas of community life as channels for exercising influence. When analyzing the factors related to community participation[2], Verba and Nie found that after controlling for socio-economic status, concurrence between leaders and citizens increases as citizen participation increases. In an earlier study conducted in just one community, Aggar and Ostrom (1956:143) found influence on community issues to be related to participation in organizations.

The apparent relationship between membership in voluntary organizations and opportunities for individuals to influence decision-making processes in broader institutions (e.g., educational, religious, and government institutions) is one reason why sociologists have considered these groups as being important. At the community or society level, these associations provide an arena in which persons can add their support to existing social

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[2]This was a composite measure including campaign activity, voting, communal activity (i.e., participation in voluntary associations and working with others to solve community problems), and particularized contacting and talking with or contacting others, including government officials, about community problems.

structures or seek to change these structures (Babchuck and Edwards, 1965). In accordance with community development theory, the participation of citizens in voluntary associations actually strengthens the local community and its connections with nonlocal functions (Sanders, 1958; Zealey, 1959; Warren, 1972; and Pearlman and Gurin, 1972). In the light of these conceptual considerations, if we find that the leadership development programs increase the involvement of their graduates in public affairs-related organizations and economic associations, then we will conclude that such educational strategies are an effective means for achieving community and rural development goals.

The Data

This study used data collected on affiliations with public affairs-related organizations and economic associations at two points in time from each respondent. Three sources of data were utilized: (1) a questionnaire administered to participants in the Pennsylvania program prior to beginning the educational program and two years after graduation; (2) similar preprogram data which were available on applications completed by participants in Montana, Michigan, and California; and (3) identical questions from the Pennsylvania study which were used as the basis for developing a postprogram questionnaire administered in 1977 to all participants in the four statewide leadership development programs. The same questionnaire used in Pennsylvania on a pretest-posttest basis was administered to a nonparticipant Pennsylvania comparison group in 1973 and again in 1975.[3] The preprogram

[3]To identify members of the Pennsylvania comparison group, reference persons specified on the program application by participants were asked to identify two individuals who were of the same age, sex, marital status, socio-economic status, and who had similar opportunities for leadership as persons they had previously recommended for the leadership development program. Each person identified was asked to complete a questionnaire that was identical to the one completed by program participants. The persons who responded became members of the comparison group.

and postprogram data which are comparable across all four states include several measures of participation in voluntary associations and government organizations.

The postprogram mail survey used the total design method for mail surveys developed by Dillman (1978) and resulted in an 86.15 percent return rate, or 709 cases. Of these, 415 cases were participants in the programs with an international emphasis which were considered in this paper. Mail survey methods were also used to administer a pretest and posttest to members of the Pennsylvania comparison group. Seventy-six persons in this group responded to both tests resulting in an 85.39 percent response rate.

The existence of preprogram data on all cases allowed us to statistically test for differences between persons who responded to the posttest and those who did not on characteristics shown in the literature to be conclusively related to participation in voluntary associations and public affairs. Differences between the two groups in their age, sex, and socio-economic status composition were found to be statistically nonsignificant. Although we found some differences between respondents and nonrespondents in their organizational affiliations, no discernable pattern of these differences was discovered. Since there was only a small number of nonrespondents who exhibited differences from the respondents, it is highly unlikely that any differences between groups would bias the final results.

Variables

The criterion or dependent variables used to assess the extent to which the programs increased the participation of their graduates in public affairs were changes in affiliations from pretest to posttest in three categories of nonprofit organizations. Included were affiliations with government and

quasi-government public service organizations; voluntary (nongovernment) public service organizations; and political parties, clubs, and related interest groups. A fourth type of nonprofit organization, economic associations, was used to assess the extent to which program graduates became involved in private interest groups and professional associations which link them to broader economic functions in society.

Two dimensions of affiliations with public affairs-related organizations and economic associations were considered: (1) organizational memberships was used to assess changing patterns of affiliations within each type of nonprofit organizations and (2) affiliations with organizations operating at regional or multi-county, state, multi-state, national or international levels was used to examine the extent of involvement in organizations or positions within organizations (such as serving on the state board of a farm organization) that are broader than local in scope. For purposes of analysis, the second dimension was used as a categorical variable, with participation at regional or higher levels of organizational operation combined into one category. Both variables were measured by counting the number of affiliations in each organizational category and then judging the scope of the organization or level of involvement within an organization. Whether or not the respondent was exposed to the training program experience was the independent variable or treatment being assessed in the program evaluation study.

Methodological Considerations and Statistical Issues

The evaluation study employed two types of quasi-experimental designs to investigate the presence of program effects upon increasing participation in public affairs-related organizations and economic associations. First,

the extent of program effects was established in Pennsylvania using a modified version of the Nonequivalent Control Group Design (see Campbell and Stanley, 1963:47-50; and Weiss, 1972:69). Differences in gains from pretest to posttest were used to describe changes in the Pennsylvania program groups relative to the Pennsylvania comparison group. Since there were no appropriate comparison groups in California, Montana, and Michigan, we were limited to a One-Group Pretest-Posttest Design (Campbell and Stanley, 1963:7-12) for interpreting the extent of program effects in those states. Our research strategy was to compare the magnitude of the differences in changes from pretest to posttest between the Pennsylvania program and comparison groups with the magnitude of the changes in program groups from the other three states to discern if similar patterns of change were present. The strength of this comparative approach is that the patterns of change among respondents from pretest to posttest can be observed as they occur in different sociopolitical contexts and for different types of participant groups.

The use of quasi-experimental designs, particularly the Nonequivalent Control Group Design, helped to reduce the likelihood of threats to internal validity such as history and maturation (Campbell and Stanley, 1963:48-49). Only differential testing and the interaction of selection and maturation were expected to present possible validity problems, since the Pennsylvania program and comparison groups completed the pretest in different settings. Given the straightforward nature of our measures of organizational participation, we felt that differential testing should not bias the results.

Since we were not working with a random sample of a population, tests of significance were not used as a criterion for assessing the presence of program effects. Instead, we used the extent of the pattern of gain for the Pennsylvania program groups relative to the Pennsylvania comparison group,

and the consistency of this pattern among all four state-wide program groups as the basis for judging whether or not the programs were successful in attaining the goal being assessed.

Unfortunately, the Pennsylvania respondents were not randomly assigned to program and comparison groups. In addition, there were several known pre-existing differences between groups which have been shown in the literature to be related to participation in voluntary associations and public affairs--most importantly, socio-economic status, age, and sex. Because of these problems, it is possible that pre-existing differences between groups could have been responsible for any observed differences in changes in organizational affiliations from pretest to posttest. Therefore, we made extensive tests using statistical adjustment methods to take specific pre-existing differences between groups into account when examining changes in participation.

The necessity of considering the possible consequences of pre-existing differences between groups when persons are not randomly assigned to treatment and control groups has been demonstrated in the evaluation research literature (Cain and Watts, 1970; Campbell and Erlebacher, 1963; Coleman, 1970, and Evans and Schiller, 1970). There is less agreement, however, on how this problem should be resolved. Most researchers writing about the issue favor using some method of statistical adjustment. That is, when random assignment is not possible they recommend after-the-fact adjustment of statistical indicators to take account of pre-existing group differences. Alwin and Sullivan (1975) have shown that the method of covariance adjustment yields unbiased estimates of experimental effects (in this case changes in organizational affiliations) under conditions of perfect measurement and complete specification of the relevant variables. We chose this method to accomplish the statistical adjustments.

The specific pre-existing differences taken into account were age, socio-economic status[4], and income. Sex was not selected as a control variable for making the statistical adjustments because only two of the states included female participants. Since pre-existing differences in tendencies to participate in nonprofit organizations may become confounded with the estimates of program effects, we also controlled for the pretest level of participation on the four types of organizations considered. Although other possible factors such as motivation and family size could have influenced change in the criterion variables, we only controlled for those variables demonstrated in the literature to be conclusively related to participation in public affairs and voluntary associations.

Two sets of tests were conducted using the method of covariance adjustment. In accordance with our research design, the first tests were between the Pennsylvania program group and the Pennsylvania comparison group. These tests revealed statistical interactions between the control variables and affiliations with political organizations on the memberships dimension. Since the amount of change in this variable was small, we did not undertake a detailed analysis of the statistical interactions. The test for statistical interaction could not be performed when assessing changes in affiliations with economic associations operating at regional or higher levels because of linear dependency problems. However, since we had no compelling reason to believe statistical interaction did or did not exist for this variable, we proceeded as if it did not. The adjustments made did not alter our basic findings on this variable. Since there were no significant interactions for the other variables, we proceeded to estimate the adjusted mean changes from pretest to posttest. Although there were some differences between the

[4]The Hollingshead Two Factor Index of Social Position (1957) was used to measure socio-economic status.

adjusted and unadjusted mean changes in affiliations with the types of organizations being assessed, the pattern of changes for respondents in the Pennsylvania program and comparison groups was not appreciably altered.

The second set of tests were between the Pennsylvania program group and the program groups in the other three states to determine the extent of similarities in program outcomes. In three out of four of these tests--changes in memberships in government and voluntary public service organizations and economic associations--statistical interactions were found. Therefore, we could not estimate the adjusted means for these criterion variables. An analysis of the interactions did not reveal any systematic differences in the relationships between the control variables and changes in affiliations with public service organizations and economic associations among the four state-wide program groups. We could only conclude that the programs were leading to somewhat different outcomes in some of the states. Given the limits of our data, we did not attempt to make specific explanations for these differences. In the one test which did not reveal statistical interactions--changes in participation in political organizations--the pattern of change again was not appreciably altered as a result of estimating the adjusted mean changes. In the light of these findings, and in the interest of presenting out results as parsimoniously as possible in this paper, we have used unadjusted means to show the pattern of change on the criterion variables. Readers who are interested in comparing the adjusted and unadjusted mean changes in organizational participation, and in examining the regression coefficients for the control variables, are urged to read Chapter 10 in Howell, et. al. (1979).

In the discussion of our findings which follows, the mean levels of organizational participation at the time of the pretest are provided as the

context for examining changes in participation. Bar charts are used to describe the mean pretest and posttest levels of participation and the amount of change. The standard deviations for the pretest and posttest levels of participation are reported in the Appendix.

The Findings

In accordance with our research design, we begin by comparing the magnitudes of change in the criterion variables from pretest to posttest between the Pennsylvania program group and the Pennsylvania comparison group. We then compare the corresponding magnitudes of change in the criterion variables among the four state-wide program groups to discern whether sufficient evidence exists to conclude that the rural development educational strategy being evaluated was successful. We first examine the extent of program effects upon increasing participation in public affairs-related organizations and then upon increasing participation in economic associations.

Public Affairs-Related Organizations

Figure 1 shows that on the memberships dimension, the Pennsylvania program and comparison groups were participating in government and quasi-government public service organizations at about the same mean level at the time of the pretest, 1.21 and 1.08 respectively. Affiliations with government organizations operating at regional or higher levels was at relatively low levels at the time of the pretest; however, the program group was at a higher mean level (.11) than the comparison group (.04). On both dimensions of participation in government organizations, the Pennsylvania program group showed substantial increases while the comparison group showed slight declines.

Memberships in government organizations showed a mean increase of just over one organization, and affiliations with such organizations operating at regional or higher levels increased by a mean of .18.

Figure 1 here

For the cross state comparisons, Figure 1 shows that the Pennsylvania program group had a substantially higher mean level of memberships in government and quasi-government public service organizations than the program groups in the other three states.[5] On affiliations with government organizations operating at regional or higher levels, all four state-wide program groups were participating at somewhat similar levels at the time of the pretest. Although there were differences in the amount of government organization membership gains from pretest to posttest among the four groups, the pattern of gain was similar across all four states. All four state-wide program groups showed sizable gains. Respondents in the Pennsylvania and Michigan programs showed large mean gains of 1.05 and 1.00, respectively, while the Montana and California respondents showed smaller but still substantial mean gains of .55 and .56, respectively. On affiliations with organizations operating at regional or higher levels, all states showed similar modest mean increases from pretest to posttest. Thus, although there were some differences in the sizes of the mean gains in participation in government and quasi-government public service organizations for the four state-wide program groups, there was a distinct pattern of gain which indicated that, on the

[5]It is not our intent here to explain these differences. They could be due to socio-political differences between the states or due to the fact that there were proportionately fewer farmers in the Pennsylvania program than in the other three state-wide programs.

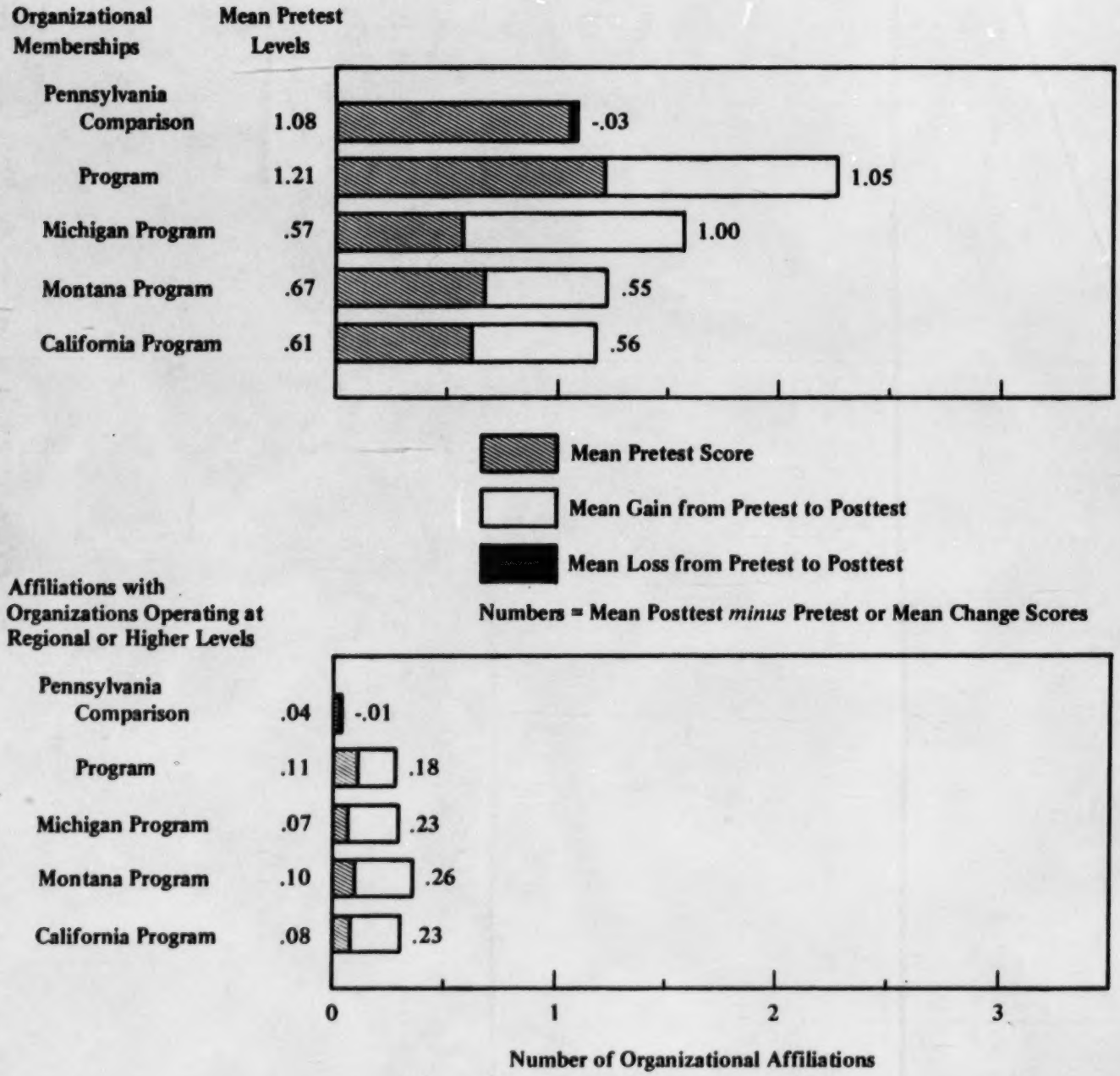

Figure 1. A comparison of changes in two dimensions of participation in government and quasi-government public service organizations from pretest to posttest by group type.

average, graduates of all four programs were becoming involved in more government organizations, and the pattern was consistent with that shown in Pennsylvania where comparisons were made between groups of participants and nonparticipants who had similar characteristics. These findings provide strong support for concluding that the educational program experience had an effect upon increasing the number of program graduates who were becoming appointed or elected to local government offices and upon the number of graduates being appointed to official government bodies operating at regional or higher levels[6], such as regional planning councils or district health planning agency boards.

Figure 2 shows that on the memberships dimension of participation in voluntary public service organizations, the Pennsylvania program and comparison groups were again at about the same level at the time of the pretest, 1.76 and 1.72 respectively. The two groups also showed relatively low levels of involvement in voluntary public service organizations operating at regional or higher levels; however, unlike government organizations they were at similar pretest levels on this variable. On the memberships dimension, the Pennsylvania program group showed a sizable increase of just over one-half of an affiliation, while the comparison group showed a slight mean decline of -.08. Both the Pennsylvania program and comparison groups registered slight mean declines in involvement in voluntary public service organizations operating at regional or higher levels.

Figure 2 here

[6]Responses to a question pertaining to whether the respondents were elected to government offices indicated that most offices to which the program graduates were elected were at the local level. Therefore, we concluded that the regional or higher level affiliations with government organizations were primarily through appointment.

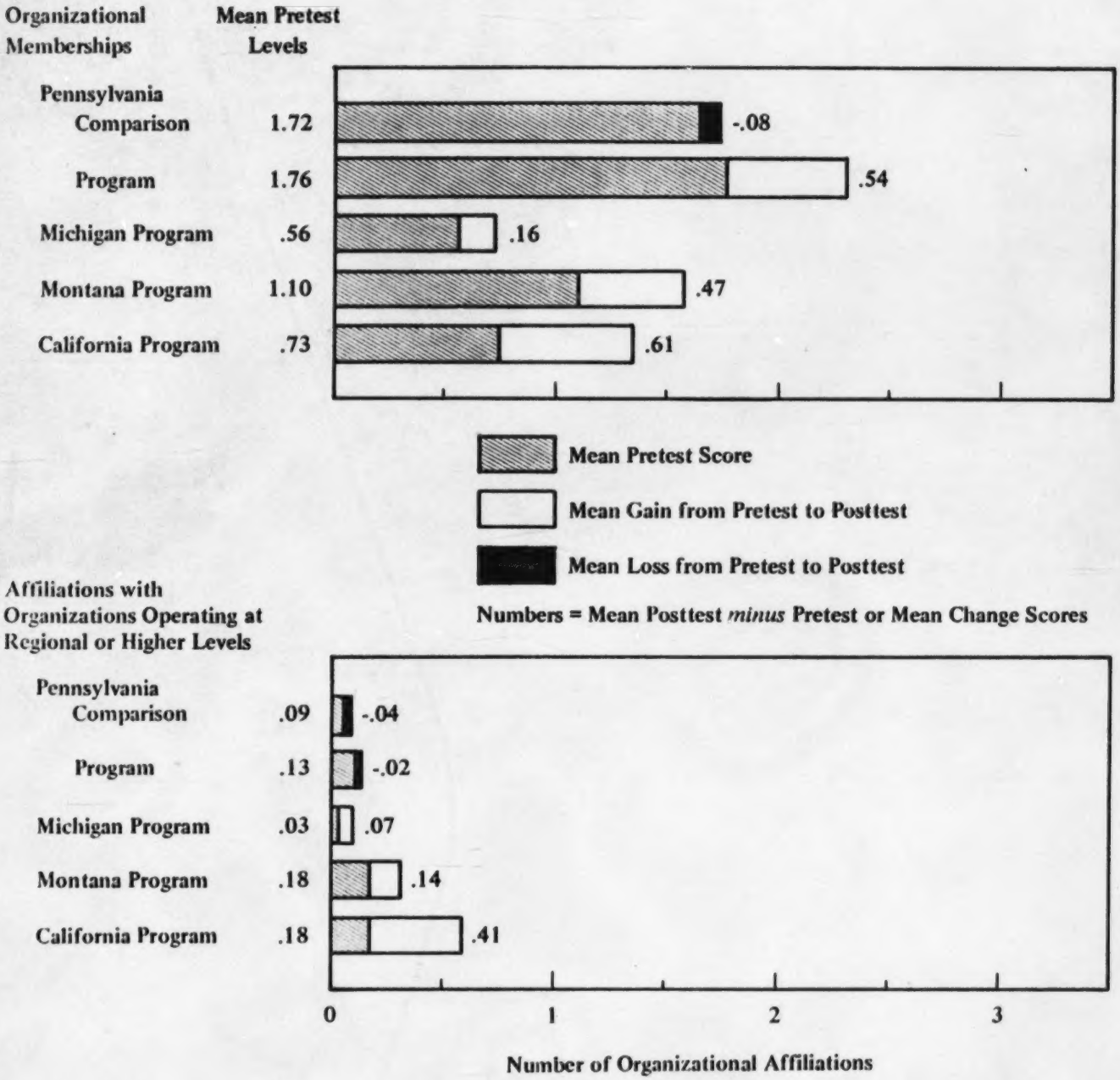

Figure 2. A comparison of changes in two dimensions of participation in voluntary public service organizations from pretest to posttest by group type.

As in the case of participation in government organizations, when making cross state comparisons there were variations in the pretest level on memberships in voluntary public service organizations. Each group showed low mean pretest levels of involvement in voluntary public service organizations at the time of the pretest, with the Michigan program group showing only a negligible mean level of involvement. The Pennsylvania, Montana, and California program groups showed very similar absolute gains in memberships from pretest to posttest; .54, .47, and .61 respectively, while the Michigan group showed a relatively small mean gain of .16. On affiliations with voluntary public service organizations operating at regional or higher levels, the Pennsylvania program group showed a slight mean decrease in involvement of -.02, while the Michigan and Montana groups showed increases of .07 and .14, respectively, and the California group showed a relatively substantial increase of .41. On the memberships dimension, Figure 2 shows quite strong support for concluding that the program had an effect on increasing participation in voluntary public service organizations. On the other hand, the gains registered for participation in such organizations operating at regional or higher levels could likely be random fluctuations; therefore, we cannot draw any conclusions about program effects upon this measure of participation in public affairs. These data indicate that program graduates are becoming more involved in voluntary public service organizations operating at the local level such as mens and womens service clubs, and other nongovernment affiliated public service organizations which are most likely funded through united givers funds.

Figure 3 shows that respondents in the Pennsylvania program and comparison groups held memberships in political groups at about the same level at the time of the pretest, but the program group registered a mean increase of .27

and the comparison group registered a mean decline of -.09. Given the pretest mean level of memberships in political groups, the mean gain for the Pennsylvania program group is substantial. The only other group to register a comparable mean gain was the Michigan program group (.20). The gains registered for the Montana and the California groups were slight, .07 and .02 respectively, and only the gains registered for the Pennsylvania and Michigan program groups appear to be more than random fluctuations. Most program graduates were generally not involved in political organizations operating at regional or higher levels and only the Pennsylvania group made modest mean gains (.11) on this measure of participation in public affairs. These data indicate that the programs in Pennsylvania and Michigan most likely had some effect upon increasing the participation of their graduates in political organizations operating at local and county levels, and that a small number of Pennsylvania program graduates have become involved in such organizations which have political responsibilities that are regional or higher in scope.

Figure 3 here

Economic Associations

As shown in Figure 4, members of all groups were quite active in economic associations both at the time of the pretest and the posttest. The Pennsylvania program group registered a substantial mean gain of 1.38 memberships in economic associations, while the Pennsylvania comparison group registered a mean decline of -.32. Gains in memberships fluctuated greatly, with the Michigan and Montana program groups showing relatively modest mean gains of .32 and .24 memberships in economic associations, respectively,

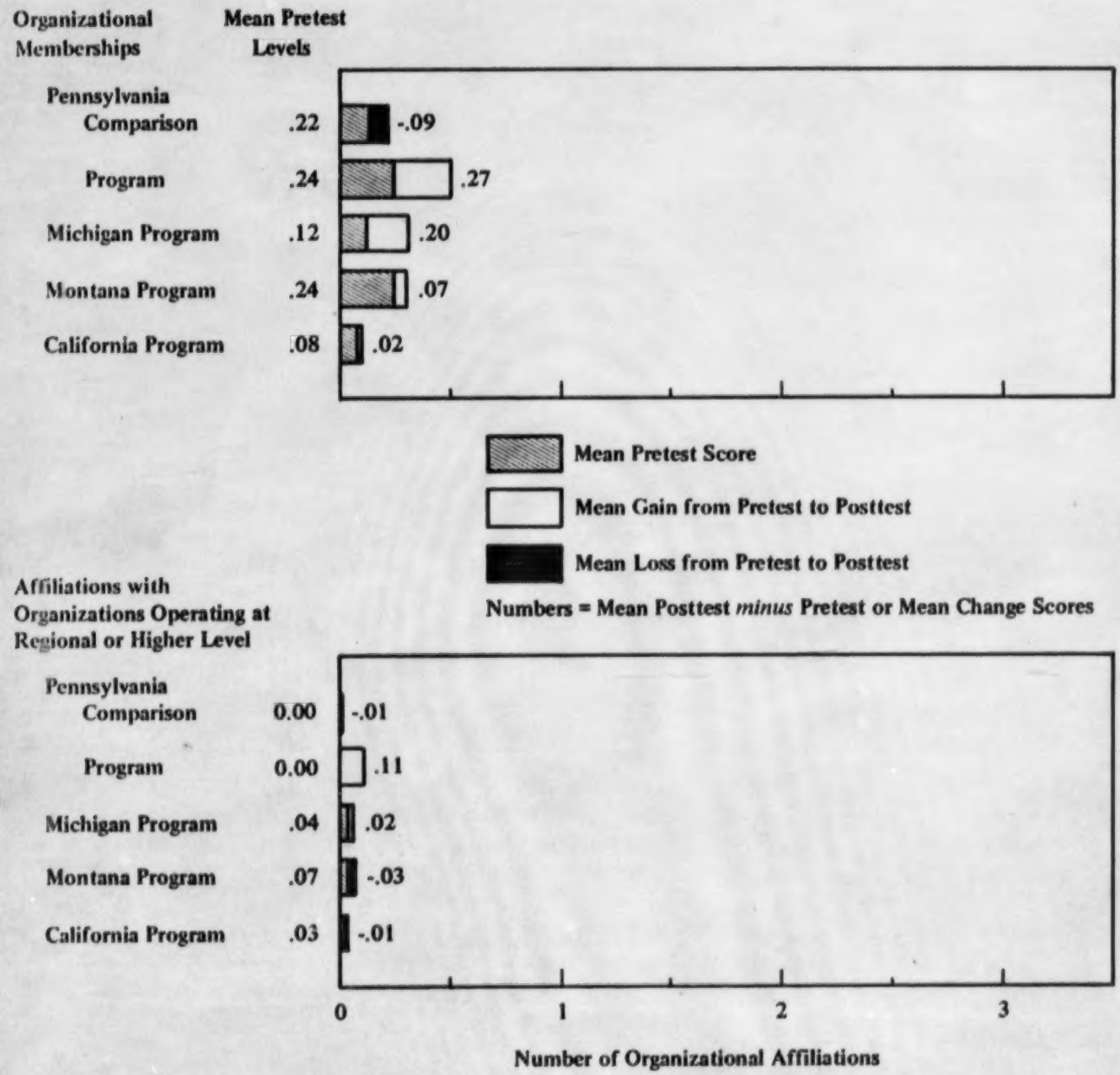

Figure 3. A comparison of changes in two dimensions of participation in political parties, organizations, clubs, and general political interest groups from pretest to posttest by group type.

and the California group showing a gain similar to that registered for the Pennsylvania program group (nearly one and one-half memberships). Thus we find quite strong evidence to indicate that the programs generally had a substantial effect upon increasing the affiliations of their graduates with economic associations such as county farm organizations.

Figure 4 here

When examining the pattern of gain in affiliations with economic associations operating at regional or higher levels we find that the Pennsylvania program group registered a mean gain of just over one-half of an affiliation, while the Pennsylvania comparison group registered declines of one-fourth of an affiliation. In making cross state-wide program group comparisons on this variable, Figure 4 shows that the gains registered for the California group were the largest, a mean of nearly one affiliation (.88) per graduate, while the Michigan graduates registered a more modest mean gain of .21 and the mean gain for the Montana graduates was a negligible .03. Thus, with the exception of Montana, we have found that the state-wide program groups are showing gains in affiliations with economic associations operating at regional or higher levels similar to the gains registered for the Pennsylvania program group, which was compared to a similar nonparticipant group. These data indicate that in addition to becoming more involved in public affairs activities, many of the program graduates are being elected and appointed to the state boards of farm organizations or the governing boards of commodity groups. Although the increases in memberships in economic associations show that the program graduates are generally becoming linked more to economic functions that are also

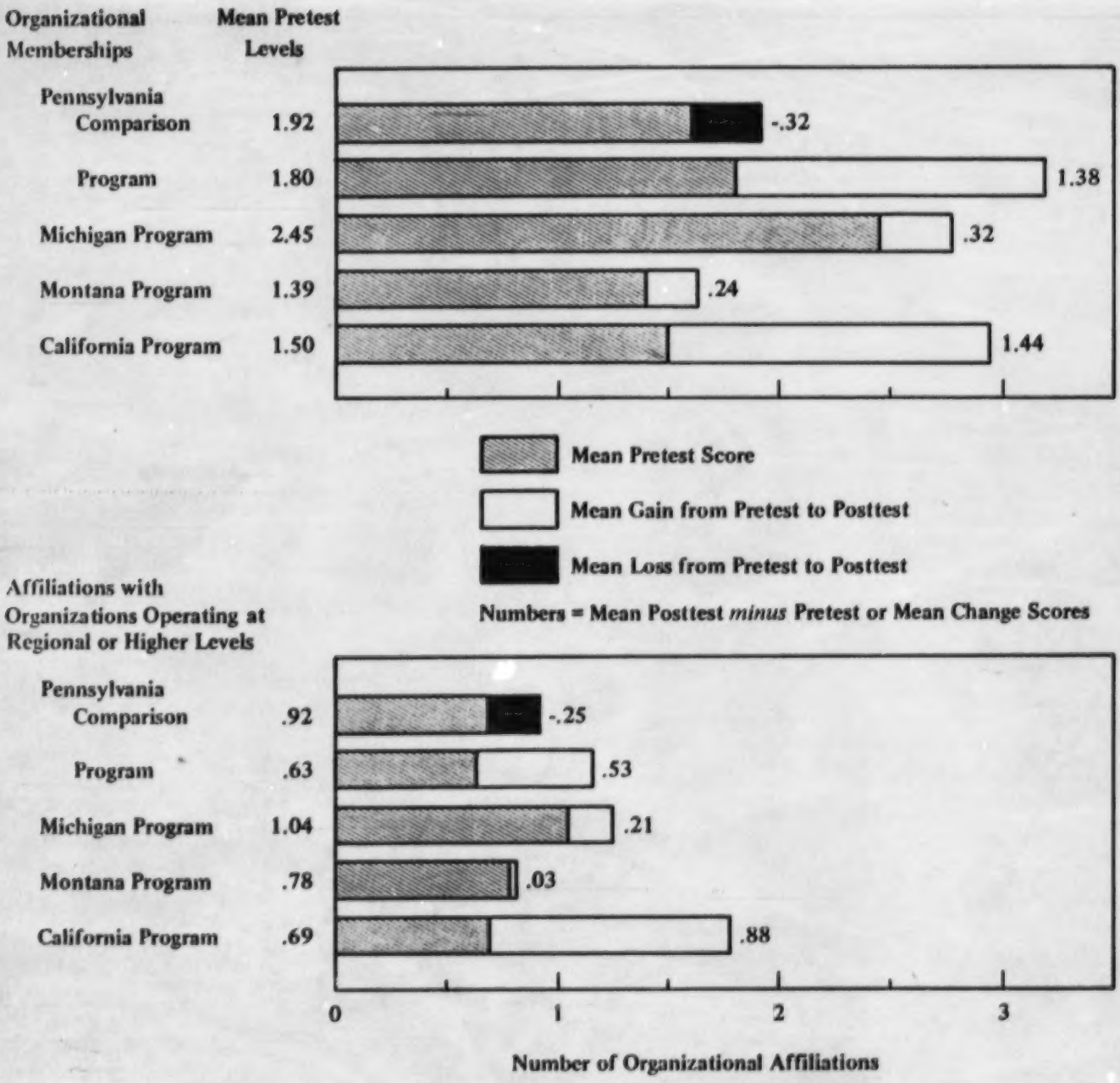

Figure 4. A comparison of changes in two dimensions of participation in economic associations from pretest to posttest by group type.

broader than local in scope, the increase in economic associations operating at regional and higher levels indicates that the program graduates are also becoming involved on the policy making bodies of farm and agricultural organizations.

Summary and Conclusions

The extent to which four state-wide experimental public affairs leadership programs attained their goal of increasing the involvement of young men and women from rural areas in public affairs activities was evaluated. The programs were conducted in California, Michigan, Montana, and Pennsylvania. Each of the specific educational program models considered in this analysis employed the use of "classroom" and travel seminar methods and emphasized the analysis of major public issues as they are local, state-wide, national, and international in scope. The research design was based upon comparing the magnitudes of change in public affairs activities between the Pennsylvania program group and a Pennsylvania comparison group, with the magnitudes of change in public affairs activities for the program groups in California, Michigan and Montana to discern if similar patterns of change were present.

Increased participation in public affairs activities was assessed by examining changes in participation in government and voluntary public service organizations, and political organizations. Also examined were changes in participation in economic associations. The changes in organizational participation assessed were on two dimensions--memberships and affiliations with organizations that are operating at regional or higher levels. The first dimension was used to determine whether the program graduates became involved in different types of public affairs-related organizations, while the second dimension was used to investigate the extent of the graduates

increased involvement in organizations that are broader than local in scope. These measures were used because of the importance of such participation as a means of strengthening rural communities and attaining rural development goals.

Graduates of the Pennsylvania program showed substantial mean gains from pretest to posttest on most measures of participation in public affairs-related organizations and economic associations, while members of the Pennsylvania comparison group showed mean declines on all measures of organizational participation. Only on one measure of organizational participation--affiliations with voluntary public service organizations operating at regional or higher levels--did members of the Pennsylvania program group show a slight mean decrease in participation. Of the three types of public affairs-related organizations, the greatest amount of change was registered for government public service organizations. Of the four types of organizations examined, the largest mean gains in both dimensions of organizational participation were registered for economic associations.

Members of the California, Michigan, and Montana program groups also showed mean gains in public service organizations, however, there were differences in the amounts of the gains registered on both dimensions of participation in government and voluntary public service organizations. On the memberships dimension of participation in political organizations, only the Michigan group registered a gain from pretest to posttest that was of approximately the same magnitude as that registered for the Pennsylvania group. The slight gains in political organization memberships registered in the other two states could have resulted from random fluctuations. Overall, the pattern of gain across the four states provides strong evidence for concluding that they were successful in increasing the participation of their

graduates in public affairs activities.

The extent of participation in economic associations as measured by both dimensions indicates that the graduates of all four programs were heavily involved in economic associations at the time of the pretest and the posttest. The pattern of gain in participation in each state is quite clear. The California and Pennsylvania program groups registered substantial gains, followed by more modest gains in Michigan and California. Only in one state, Montana, did we find that the gains in participation on one of the dimensions assessed were negligible. This was on affiliations with economic associations operating at regional or higher levels. Thus, we conclude that the programs also had a substantial impact upon stimulating the involvement of their graduates in economic associations at local and nonlocal levels.

Although there were some notable variations among the four state-wide program groups in the amounts of gain from pretest to posttest registered on two dimensions of participation in public affairs-related organizations and economic associations, generally there were consistent mean increases shown for the program graduates. The variations among the four state-wide program groups may be related to respondent characteristics or program designs, but more likely they are due to regional variations in the number and kinds of government organizations and voluntary associations among the four states.

These findings have shown the positive contribution of state-wide public affairs leadership development programs toward increasing the participation of their graduates in public service organizations. As suggested by Wilkinson (1979), such programs can greatly facilitate the development of "collaborative" strategies for improving the quality of life in rural communities. If collaborative local development strategies are to be effective in rural areas,

educational programs in public problem-solving must be made available to agricultural and rural leaders who are or may likely become involved in public affairs leadership roles. Such programs will also stimulate greater involvement in economic associations and we would expect that they should have a broadening effect upon the development of future farm and agricultural leaders. The results of this study provide strong evidence to indicate that graduates of an intensive public affairs leadership development program generally become more involved in leadership roles related to providing public services, and they also become more involved in collective efforts concerned with economic affairs.

Through the involvement of program graduates in public affairs-related organizations that are regional or higher in scope, and increased affiliations with economic associations, we expect that the graduates are also developing new and stronger linkages to functions that are external to the community. We would also expect that new associations developed during the educational program experience with other participants, state and federal government leaders, university and college faculty members, and leaders of private industry should expand the resources available to the graduates. In turn, such linkages can greatly strengthen the local community through expanding the exposure of citizen leaders to new economic resources and government services (Solomon, 1972).

Given the content of the educational programs evaluated, we believe that graduates of such programs also will be more effective participants in local development processes which are directed toward improving the quality of life. In addition, those persons taking on leadership roles in government or political organizations and economic associations that are regional or higher

in scope should have a much broader perspective from which to make decisions and guide policy development processes. Educational programs of this type should be used for improving and maintaining the quality of rural life in conjunction with technical assistance programs.

Appendix: Standard deviations for mean changes from pretest to posttest on two dimensions of participation in public affairs-related organizations and economic associations by group type.

Two Dimensions of Participation by Type of Organization	Group Type									
	Pennsylvania				California		Michigan		Montana	
	Comparison Group (N=76)		Program Group (N=76)		(N=143)		(N=124)		(N=72)	
	Pretest	Posttest	Pretest	Posttest	Pretest	Posttest	Pretest	Posttest	Pretest	Posttest
Government Public Service										
Memberships	1.04	1.03	1.24	1.79	.92	1.26	.81	1.80	.90	1.46
Regional or Higher Levels	.20	.16	.35	.56	.30	.62	.29	.62	.34	.81
Voluntary (Non-government) Public Service										
Memberships	1.58	1.74	1.58	2.26	.97	1.19	.76	.90	1.20	1.76
Regional or Higher Levels	.33	.22	.41	.51	.51	.79	.22	.30	.42	.71
Political Parties, Clubs, and Related Interest Groups										
Memberships	.56	.34	.43	.92	.32	.39	.38	.72	.59	.52
Regional or Higher Levels	0.0	.11	0.0	.39	.20	.14	1.11	1.49	.31	.20
Economic Associations										
Memberships	2.20	1.93	1.63	2.79	1.60	2.19	1.54	2.22	1.53	1.61
Regional or Higher Levels	1.17	1.12	1.15	1.28	1.10	1.73	.23	.15	1.19	1.11

REFERENCES

Aggar, Robert E., and Vincent Ostrom
1956 "Political Participation in a Small Community." Pp 139-148 in Heinz Eulau, Samual J. Eldersveld and Morris Janowitz, (ed.) Political Behavior. Glencoe, Illinois: The Free Press.

Alwin, Duane and Michael J. Sullivan
1975 "Issues of Design and Analysis in Evaluation Research." Sociological Methods and Research 4 (August):77-100.

Babchuk, Nicholas and John N. Edwards
1965 "Voluntary Associations and the Integration Hypothesis." Sociological Inquiry Vol. 35, No. 2:149-162.

Cain, Glen G. and Harold Watts
1970 "Problems in Making Policy Inferences from the Coleman Report." American Sociological Review 35 (April) 228-242.

Campbell, Donald T. and Albert Erlebacher
1970 "How Regression Artifacts in Quasi-Experimental Evaluations Can Mistakenly Make Compensatory Education Look Harmful." Pp 185-210 in Jerome Hellmuth (ed.) Disadvantaged Child Vol 3, New York, Brunner/Mazel, Inc.

Campbell, Donald and Julian Stanley
1963 Experimental and Quasi-Experimental Designs for Research. Chicago, Illinois: Rand McNally, College Publishing Company.

Coleman, James S.
1970 "Reply to Cain and Watts." American Sociological Review 35 (April) 242-249.

Cosgriffe, Harry A.
1968 "Five approaches to Community Resource Development," Journal of Cooperative Extension. Summer.

Dillman, Don A.
1978 Mail and Telephone Surveys: The Total Design Method. New York: Wiley Interscience.

Evans, John W. and Jeffrey Schiller
1970 "How Preoccupation with Possible Regression Artifacts Can Lead to a Faulty Strategy for the Evaluation of Social Action Programs: a Reply to Campbell and Erlebacher." Pp 216-220, in Jerome Hellmuth. (ed.) Disadvantaged Child Vol. 3, New York: Brunner/Mazel, Inc.

Hollingshead, August B. and Frederick C. Redlich
1957 Social Class and Mental Illness. New York: John Wiley.

Howell, Robert E, Ivan Lee Weir, and Annabel Kirschner Cook
1979 Public Affairs Leadership Development: An Impact Assessment of Programs Conducted in California, Michigan, Montana and Pennsylvania: Washington State University. Pullman, April.

Kornhouser, William
1959 The Politics of Mass Society. New York: The Free Press.

Lipset, Seymore M., Martin Trow and James S. Coleman
1956 Union Democracy. Glencoe: The Free Press.

Miller, Robert W.
1979 Evaluative Research in Rural Development: Concepts, Methods, Issues. Northeast Rural Development Center, Cornell University, Ithaca, June.

Pearlman, Robert and Arnold Gurin
1972 Community Organization and Social Planning. New York: John Wiley and Sons, Inc.

Sanders, Irwin T.
1958 The Community: An Introduction to a Social System. The Ronald Press Company, New York.

Solomon, Darwin D.
1972 "Characteristics of Local Organizations and Service Agencies Conducive to Development," Sociologia Ruralis, Proceedings of the Third World Congress for Rural Sociology, Baton Rouge, Louisiana, August.

Taub, Richard P., George P. Surgeon, Sara Lindholm, Phyllis Betts Otti, and Amy Bridges
1977 "Urban Voluntary Associations, Locally Based and Externally Induced." American Journal of Sociology Vol. 83, No. 2:425-442.

Verba, Sidney and Norman H. Nie
1972 Participation in America: Political Democracy and Social Equality. New York: Harper and Row.

Warren, Roland L.
1972 The Community in America. Chicago, Illinois: Rand McNally and Company.

Weis, Carol H.
1972 Evaluation Research. Englewood Cliffs, New Jersey: Prentice-Hall, Inc.

Wilkinson, Kenneth P.
1979 "Social Well-Being and Community", Journal of the Community Development Society Vol. 10:1, Spring.

Zealey, Phillip
1959 "Training Local Leaders For Community Development." in Albert Meister (ed.) Community Development: Training Local Leaders. Rome, No. 3.

Zimmer, Basil and Amos H. Hawley
1959 "Significance of Membership in Associations." American Journal of Sociology 65 (Spetember):196-201.